

# STATE OF MAINE DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY LAND USE PLANNING COMMISSION P.O. Box 307

WEST FARMINGTON, MAINE 04992

WALTER E. WHITCOMB COMMISSIONER

NICHOLAS D. LIVESAY EXECUTIVE DIRECTOR

# PERMIT

AMENDMENT D TO DEVELOPMENT PERMIT DP 4179

The staff of the Maine Land Use Planning Commission, after reviewing the application and supporting documents submitted by Dome Mountain Club, Inc. for Amendment D to Development Permit DP 4179, finds the following facts:

1. Applicant: Dome Mountain Club, Inc.

Attn: Guy Boulet 4575 rue Laval Lac-Megantic

Quebec, Canada G6B 1C4

- 2. Date of Completed Application: July 25, 2016
- 3. Location of Proposal: Beattie Township, Franklin County
  Lot #1 on Tax Plan 01
- 4. Zoning: (P-GP) Great Pond Protection Subdistrict (P-SL2) Shoreland Protection Subdistrict (M-GN) General Management Subdistrict
- 5. Lot Size: 4.81 Acres (owned)
- 6. Principal Buildings:

(Note: structure numbers and letters correspond to the site plan filed with application):

Existing Cabin #1 ("Clubhouse") (30 ft. by 60 ft.) Existing Cabin #2 (20 ft. by 40 ft.) with Existing Addition (12 ft. by 30 ft.) Existing Mobile Home (#3) (14 ft. by 50 ft.) Existing Cabin #4 (22 ft. by 24 ft.) with Existing Screened Porch (8 ft. by 22 ft.)



133 FYFE ROAD WWW.MAINE.GOV/DACF/LUPC PHONE: 207-670-7492 PHONE: 207-670-7493 Existing Cabin #5 (20 ft. by 24 ft.) With Proposed Porch (16 ft. by 20 ft.) Existing Cabin #6 (24 ft. by 24 ft.)

# 7. Accessory Structures:

(Note: structure numbers and letters correspond to the site plan filed with application)

Existing Generator Shed #1.1 (8 ft. by 8 ft.)
With Proposed Addition (B) (8 ft. by 10 ft.)
Existing Storage Shed #1.2 (12 ft. by 27 ft.)
With Proposed Addition (A) (10 ft. by 12 ft.)
Existing Storage Shed #3.1 (12 ft. by 24 ft.)
Existing Storage Shed #4.1 (21 ft. by 24 ft.)
Existing Solar Panel Tower #SPT1 (4' x 4' base, 60 ft. tall)
Existing Solar Panel Tower #SPT2 (4' x 4' base, 60 ft. tall)
Existing Wind Turbine Tower (4' x 4' base, 45 ft. tall)
Proposed Shed (E) (8ft. by 16 ft.)

Proposed Shed (E) (8ft. by 16 ft.)
Proposed Building (C) (10 ft. by 16 ft.)
Existing Fireplace with Proposed Concrete Slab and Roof (H) (14 ft. by 14 ft.)

8. Affected Waterbody: Boundary Pond

The Commission has identified Boundary Pond as a resource class 2, management class 7, accessible, relatively undeveloped lake with significant fisheries and botanical physical resources.

## Background

- 9. The applicant's lot along Boundary Pond was developed prior to the Commission's inception with a sporting camp complex consisting of a 30 foot by 60 foot clubhouse (#1), a 20 foot by 40 foot cabin (#2) with a 12 foot by 30 foot addition, a 14 foot by 50 foot mobile home (#3), a 12 foot by 24 foot shed (#3.1) and a 60 foot tower (SPT#1) behind the mobile home (#3), formerly used to provide cellular telephone service to the mobile home. Tower SPT #1 is now used to support solar panels that provide power to the mobile home.
- 10. The facility became a private facility in 1954 when the applicant acquired the property.
- 11. Development Permit DP 4179, issued to the applicant in October of 1992, approved the construction of an additional 22 foot by 24 foot cabin (#4) and the installation of a central combined sewage disposal system to serve the proposed cabin and the existing pre-Commission clubhouse, cabin and mobile home. The permitted cabin #4 and combined sewage disposal system have been constructed. The sewage disposal system is located behind and upslope of cabin #2.
- 12. In addition to the previously permitted development, a 45 foot tall wind turbine tower was constructed on the lot near cabin #4 and a second 60 foot solar panel tower (SPT #2)

was constructed on the lot behind cabin #2 around 1992-1993. Tower SPT #2 was installed to provide power to a sewage pump for the combined sewage disposal system.

- 13. Amendment A to Development Permit DP 4179, issued to the applicant in December of 1998, approved the repair of portions of the 20 foot by 40 foot pre-Commission cabin #2 and reconstruction of the 12 foot by 30 foot addition on the cabin. Amendment A also granted approval to construct a new 8 foot by 10 foot shed (#1.1) and to construct a slab type foundation under the existing mobile home (#3). The permitted work on cabin #2 and the permitted shed have been constructed. The slab foundation under the mobile home was never constructed.
- 14. Amendment B to Development Permit DP 4179, issued to the applicant in August of 2008, granted approval to construct an additional 20 foot by 24 foot cabin (#5) and to expand the existing central sewage disposal system to accommodate the additional cabin. The permitted cabin and sewage disposal system expansion have been constructed.
- 15. Amendment C to Development Permit DP 4179, issued to the applicant in August of 2012, granted approval for the construction of an additional 24 foot by 24 foot cabin (#6) with the cabin to be served by the existing combined sewage disposal system, an 8 foot by 22 foot screened porch onto cabin #4, and a 12 foot by 27 foot storage shed (#1.2) near cabin #1. The permitted cabin, screened porch and storage shed have been constructed.

# **Proposal**

- 16. The applicant now proposes to construct the following structures (letters correspond to the site plan submitted with the application):
  - A. 10 foot by 12 foot addition onto shed #1.2;
  - B. 8 foot by 10 foot addition onto shed #1.1;
  - C. New 10 foot by 16 foot building;
  - D. 16 foot by 20 foot porch onto cabin #5;
  - E. New 8 foot by 16 foot shed; and
  - H. New 14 ft. by 14 foot concrete slab under, and roof over, an existing outdoor fireplace.

All proposed structures would be set back at least 150 feet from the normal high water mark of Boundary Pond, 100 feet from the normal high water mark of an unnamed stream located on the east side of the applicant's lot, more than 75 feet from roads, and more than 25 feet from property boundary lines.

The applicant also seeks after-the-fact approval for construction of solar panel tower SPT #2 and the wind turbine tower that were installed in the early 1990's. Tower SPT #2 is set back 110 feet from the normal high water mark of Boundary Pond, more than 100 feet from the normal high water mark of the unnamed stream, more than 75 feet from roads, and more than 25 feet from property boundary lines. The wind turbine tower is set back approximately 250 feet from the normal high water mark of Boundary

Pond, more than 100 feet from the normal high water mark of the unnamed stream, more than 75 feet from roads, and more than 25 feet from property boundary lines.

The solar panels on tower SPT #2 power a pump that pumps sewage to the sewage disposal system permitted under Development Permit DP 4179. The applicant states that solar panel tower SPT #2 was sited so as to be proximate to the pump, and that it is not possible to locate solar panel tower SPT #2 any farther back from Boundary Pond. Moving the tower farther away from the pond would increase the distance between the tower and the pump such that electric voltage would drop too much at the pump to power it.

The applicant also states that it is not feasible to install the solar panels on the roofs of existing buildings because the panels would be too shaded and would not generate sufficient power.

## Review Criteria

- 17. Under the provisions of Section 10.26,D,2 of the Commission's <u>Land Use Districts and Standards</u>, the minimum required setbacks for non-residential structures are 150 feet from the normal high water mark of Great Ponds such as Boundary Pond, 100 feet from the normal high water mark of streams, 75 feet from roads and 25 feet from other property boundary lines.
- 18. Under the provisions of Section 10.26,F,2 of the Commission's <u>Land Use Districts and Standards</u>, structures within 500 feet of the normal high water mark of a Great Pond shall be no higher than 30 feet. Under the provisions of Section 10.25,F,3 features of structures which contain no floor area such as chimneys, towers, ventilators and spires and freestanding towers and turbines may exceed these maximum heights with the Commission's approval.
- 19. Under the provisions of Section 10.26,G,5 of the Commission's <u>Land Use Districts and Standards</u>, an exception may be made to the shoreline, road, and/or property line setback requirements for structures where the Commission finds that such structures must be located near to the shoreline, road, or property line due to the nature of their use.
- 20. The proposal complies with Sub-Chapter III of the Commission's <u>Land Use Districts</u> and <u>Standards</u>.
- 21. The facts are otherwise as represented in Development Permit Application DP 4179, Amendment Requests A through D, and supporting documents.

Based upon the above Findings, the staff concludes that:

1. All proposed structures meet all of the applicable dimensional requirements for nonresidential structures under the provisions of Section 10.25 of the Commission's Land Use Districts and Standards.

- 2. The existing wind turbine tower meets the minimum setback requirements under Section 10.26,D,2 of the Commission's <u>Land Use Districts and Standards</u>. Existing tower SPT #2 may be allowed in its current location at 110 feet from the normal high water mark of Boundary Pond under the provisions of Section 10.26,G,5 of the Commission's <u>Land Use Districts and Standards</u>, in that the tower must be located nearer to the shoreline of Boundary Pond, due to the nature of its use to provide power to the sewage pump for the applicant's sewage disposal system. Specifically it is not feasible to locate the tower 150 feet from the pond and still have it provide sufficient electrical power for the sewage pump.
- 3. Existing tower SPT #2 and the existing wind turbine tower may be allowed at heights greater than 30 feet under the provisions of Section 10.26,F,3 of the Commission's <u>Land Use Districts and Standards</u>. Specifically, it is not feasible to install solar panels onto the roofs of buildings at the site since they would be shaded too much, and the wind turbine needs to be elevated in order to be effective.
- 4. If carried out in compliance with the Conditions below, the proposal will meet the Criteria for Approval, section 685-B(4) of the Commission's Statutes, 12 M.R.S.A.

# Therefore, the staff approves the application of Dome Mountain Club, Inc. with the following conditions:

- 1. Construction activities authorized in this permit must be substantially started within 2 years of the effective date of this permit and substantially completed within 5 years of the effective date of this permit. If such construction activities are not started and completed within this time limitation, this permit shall lapse and no activities shall then occur unless and until a new permit has been granted by the Commission.
- 2. This permit is dependent upon and limited to the proposal as set forth in the application and supporting documents, except as modified by the Commission in granting this permit. Any variation may be subject to prior review and approval of the Maine Land Use Planning Commission.
- 3. All permitted structures, except tower SPT #2, must be set back a minimum of 150 feet from the normal high water mark of Boundary Pond, 100 feet from the normal high water mark of the unnamed stream, 75 feet from all roads, and 25 feet from other property boundary lines. Tower SPT #2 must be set back a minimum of 110 feet from the normal high water mark of Boundary Pond, 100 feet from the normal high water mark of the unnamed stream, 75 feet from all roads, and 25 feet from other property boundary lines.
- 4. Permitted structures must not exceed 30 feet in height, except tower SPT #2 and the wind turbine tower. Any expansion or increase in height of any of the existing towers at the site, including the pre-Commission tower SPT#1, requires prior review and approval by the Commission.

- 5. All clearing of vegetation on the lot must comply with the Commission's standards for vegetative clearing, Sections 10.27, B, a copy of which is attached.
- 6. All filling and grading activities on the lot must comply with the Commission's standards for Filling and Grading, Section 10.27, F, a copy of which is attached.
- 7. Temporary and permanent sedimentation control measures must be implemented to effectively stabilize all areas of disturbed soil and to catch sediment from runoff water before it leaves the construction site so that sediment does not enter water bodies, drainage systems, water crossings, wetlands or adjacent properties. Clearing and construction activities, except those necessary to establish sedimentation control devices, shall not begin until all erosion and sedimentation control devices (including ditches, culverts, sediment traps, settling basins, hay bales, silt fences, etc.) have been installed and stabilized. Once in place, such devices shall be maintained to ensure proper functioning.
- 8. All temporary sedimentation and erosion control devices shall be removed after construction activity has ceased and a cover of healthy vegetation has been established or other appropriate permanent control measures have been effectively implemented. Permanent soil stabilization shall be completed within one week of inactivity or completion of construction. Soil disturbance must not occur when the ground is frozen or saturated.
- 9. The scenic character and healthful condition of the area covered under this permit must be maintained. The area must be kept free of litter, trash, junk cars and other vehicles, and any other materials that may constitute a hazardous or nuisance condition.
- 10. All exterior lighting must be located and installed so as to illuminate only the target are to the extent possible. Exterior lighting must not produce a strong, dazzling light of reflection beyond lot lines onto neighboring properties, water bodies, or roadway so as to impair driver vision or to create nuisance conditions.
- 11. The permittee shall secure and comply with all applicable licenses, permits, authorizations, and requirements of all federal, state, and local agencies.
- 12. Once construction is complete, the permittee shall submit a self-certification form, notifying the Commission that all conditions of approval of this permit have been met. The permittee shall submit all information requested by the Commission demonstrating compliance with the terms of this permit.
- 13. The lot may not be further divided without the prior review and approval of the Commission. In addition, certain restrictions, including subdivision, setback and minimum lot size requirements, and activities on the original parcel from which the lot was first divided, may limit or prohibit a redivision of the lot in the future. The permittee is hereby advised to consult applicable land use laws and rules and with the Commission prior to any future redivision of the lot.

14. All conditions of previously issued Commission permits shall remain in effect, except as specifically modified by this permit and prior amendments.

This permit is approved upon the proposal as set forth in the application and supporting documents, except as modified in the above stated conditions, and remains valid only if the permittee complies with all of these conditions. Any variation from the application or the conditions of approval is subject to prior Commission review and approval. Any variation undertaken without Commission approval constitutes a violation of Land Use Planning Commission law. In addition, any person aggrieved by this decision of the staff may, within 30 days, request that the Commission review the decision.

DONE AND DATED AT WEST FARMINGTON, MAINE, THIS 17<sup>TH</sup> DAY OF AUGUST, 2016.

By: Suna 7. Brusile

for Nicholas Livesay, Director

# Maine Department of Agriculture, Conservation and Forestry - Land Use Planning Commission

# Zoning and Parcel Viewer

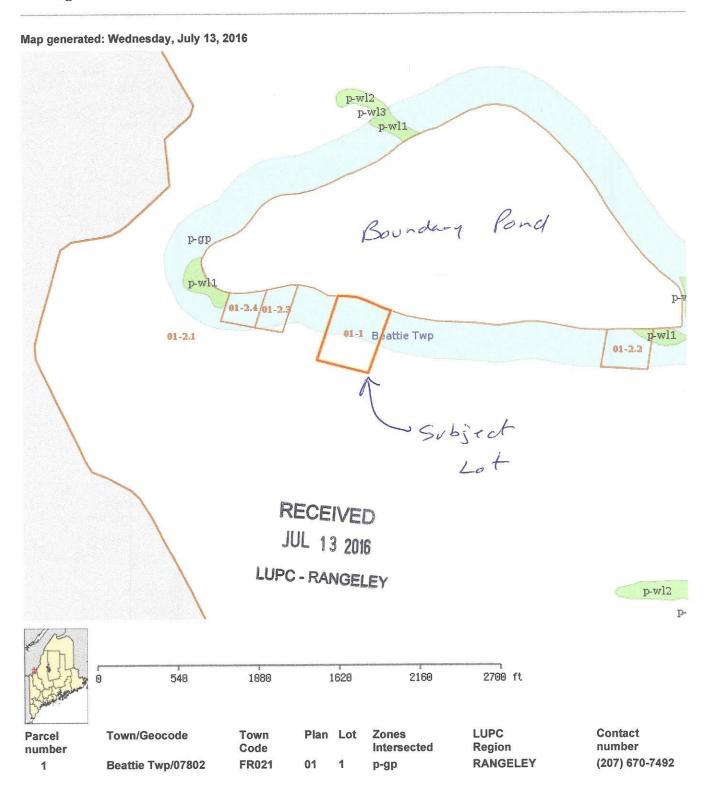
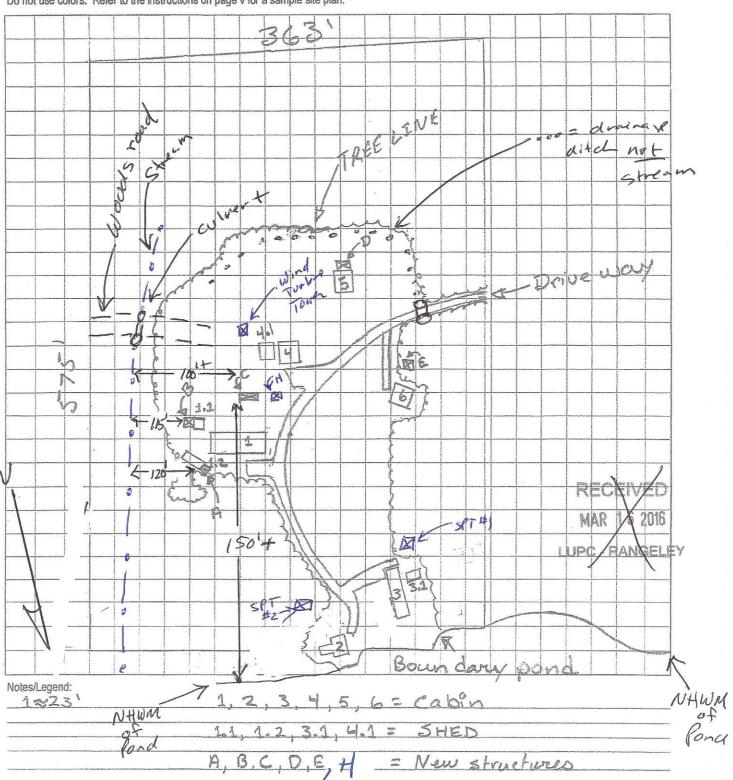






EXHIBIT D-2: AFTER SHEEP PANGELEY

Prepare a bird's-eye view site plan that shows your entire property and includes all the elements described for Exhibit D in the instructions on page iv. Do not use colors. Refer to the instructions on page v for a sample site plan.



# B. VEGETATION CLEARING

Vegetation clearing activities not in conformance with the standards of this section may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit shall show by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards of this section, shall be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

The following requirements shall apply to vegetation clearing activities for any purpose other than road construction, road reconstruction and maintenance, wildlife or fishery management, forest management, agricultural management, public trailered ramps or hand-carry launches:

- 1. A vegetative buffer strip shall be retained within:
  - a. 50 feet of the right-of-way or similar boundary of any public roadway,
  - b. 75 feet of the normal high water mark of any body of standing water less than 10 acres in size, or any coastal wetland or flowing water draining less than 50 square miles, and
  - c. 100 feet of the normal high water mark of a body of standing water 10 acres or greater in size or flowing water draining 50 square miles or more.
- 2. Within this buffer strip, vegetation shall be maintained as follows:
  - a. There shall be no cleared opening greater than 250 square feet in the forest canopy as measured from the outer limits of the tree crown. However, a footpath is permitted, provided it does not exceed six (6) feet in width as measured between tree trunks, and, has at least one bend in its path to divert channelized runoff.
  - b. Selective cutting of trees within the buffer strip is permitted provided that a well-distributed stand of trees and other natural vegetation is maintained.

For the purposes of this section a "well-distributed stand of trees" adjacent to a body of standing water 10 acres or greater in size shall be defined as maintaining a rating score of 24 or more in a 25-foot by 50-foot rectangular area as determined by the following rating system.

Near other water bodies, tributary streams and public roadways a "well-distributed stand of trees" shall be defined as maintaining a rating score of 16 or more per 25-foot by 50-foot (1250 square feet) rectangular area as determined by the following rating system.

Diameter	of Tree	at	4-1/2	feet Above

Ground Level (inches)	Points	
2.0 to < 4.0	1	
4.0 to < 8.0	2	
8.0 to < 12.0	4	
12.0 +	8	

Table 10.27,B-1. Rating system for a well-distributed stand of trees.

The following shall govern in applying this rating system:

- The 25-foot x 50-foot rectangular plots shall be established where the landowner or lessee proposes clearing within the required buffer;
- Each successive plot shall be adjacent to but not overlap a previous plot;
- (3) Any plot not containing the required points shall have no vegetation removed except as otherwise allowed by these rules;
- (4) Any plot containing the required points may have vegetation removed down to the minimum points required or as otherwise allowed by these rules; and
- (5) Where conditions permit, no more than 50% of the points on any 25-foot by 50-foot rectangular area may consist of trees greater than 12 inches in diameter.

For the purposes of this section, "other natural vegetation" is defined as retaining existing vegetation under 3 feet in height and other ground cover and retaining at least 5 saplings less than 2 inches in diameter at 4½ feet above ground level for each 25-foot by 50-foot rectangular area. If 5 saplings do not exist, the landowner or lessee may not remove any woody stems less than 2 inches in diameter until 5 saplings have been recruited into the plot. In addition, the soil shall not be disturbed, except to provide for a footpath or other permitted use.

- c. In addition to Section 10.27,B,2,b above, no more than 40% of the total basal area of trees 4.0 inches or more in diameter, measured at 4½ feet above ground level, may be removed in any ten (10) year period.
- Pruning of live tree branches is prohibited, except on the bottom 1/3 of the tree provided that tree vitality will not be adversely affected.
- e. In order to maintain a buffer strip of vegetation, when the removal of storm-damaged, diseased, unsafe, or dead trees results in the creation of cleared openings in excess of 250 square feet, these openings shall be established with native tree species.
- 3. At distances greater than one hundred (100) feet, horizontal distance, from the normal high water mark of a body of standing water greater than 10 acres, no more than 40% of the total basal area of trees four inches or more in diameter, measured at 4½ feet above ground level, may be removed in any ten (10) year period. In no instance shall cleared openings exceed, in the aggregate, 10,000 square feet, including land previously cleared. These provisions apply to areas within 250 feet of all bodies of standing water greater than ten (10) acres, and to the full depth of the P-AL zone. This requirement does not apply to the development of uses allowed by permit.
- 4. Cleared openings legally in existence as of June 7, 1990 may be maintained, but shall not be enlarged except as permitted by these regulations.
- Section 10.27,B,1 through 4; (ii) to address the removal of non-native invasive species of vegetation; (iii) as a mechanism to allow for development by permit that exceeds the vegetation standards of Section 10.27,B or the cleared opening standards of Section 10.27,Q,1,Table A,(4), including removal of vegetation in conjunction with a shoreline stabilization project; or (iv) as part of a mitigation plan for clearing associated with a recreational lodging facility, the revegetation must comply with the following requirements.

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a. The property owner must submit a revegetation plan, prepared with and signed by a qualified professional (examples include: arborist, forester, landscape architect, U.S.D.A. Natural Resources Conservation Service), that describes revegetation activities and maintenance. The plan must include a scaled site plan depicting where vegetation was, or is to be removed, where existing vegetation is to remain, and where vegetation is to be planted, including a list of all vegetation to be planted.

- b. Revegetation must occur along the same segment of shoreline and in the same area where vegetation was removed and at a density comparable to the pre-existing vegetation, except where a shoreline stabilization activity does not allow revegetation to occur in the same area and at a density comparable to the pre-existing vegetation, in which case revegetation must occur along the same segment of shoreline and as close as possible to the area where vegetation was removed. When part of a mitigation plan, revegetation must occur along the same segment of shoreline, road, or other resource affected by proposed uses or development, and at a density and configuration comparable to other naturally occurring forests on the site or in the vicinity.
- c. Revegetation activities must meet the following requirements for trees and saplings:
  - All trees and saplings removed must be replaced with native noninvasive species;
  - (2) Replacement vegetation must at a minimum consist of saplings;
  - (3) If more than three trees or saplings are planted, then at least three different species shall be used;
  - (4) No one species shall make up 50% or more of the number of trees and saplings planted;
  - (5) If revegetation is required for a shoreline stabilization project, and it is not possible to plant trees and saplings in the same area where trees or saplings were removed, then trees or sapling must be planted in a location that effectively reestablishes the screening between the shoreline and structures; and
  - (6) A survival rate of at least 80% of planted trees or saplings is required for a minimum five years period from the time of planting. Replanting of trees or saplings that did not survive does not trigger a new five year period.
- d. Revegetation activities must meet the following requirements for woody vegetation and other vegetation under three feet in height:
  - All woody vegetation and vegetation under three feet in height must be replaced with native noninvasive species of woody vegetation and vegetation under three feet in height as applicable;
  - (2) Woody vegetation and vegetation under three feet in height shall be planted in quantities and variety sufficient to prevent erosion and provide for effective infiltration of stormwater;
  - (3) If more than three woody vegetation plants are to be planted, then at least three different species shall be planted;
  - (4) No one species shall make up 50% or more of the number of planted woody vegetation plants; and

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- (5) Survival of planted woody vegetation and vegetation under three feet in height must be sufficient to remain in compliance with the standards contained within this chapter for a minimum of five years from the time of planting. Replanting of trees or saplings that did not survive does not trigger a new five year period.
- e. Revegetation activities must meet the following requirements for ground vegetation and ground cover:
  - All ground vegetation and ground cover removed must be replaced with native herbaceous vegetation, in quantities and variety sufficient to prevent erosion and provide for effective infiltration of stormwater;
  - (2) Where necessary due to a lack of sufficient ground cover, an area must be supplemented with a minimum four inch depth of leaf mulch and/or bark mulch to prevent erosion and provide for effective infiltration of stormwater; and
  - (3) Survival and functionality of ground vegetation and ground cover must be sufficient to remain in compliance with the standards contained within Section 10.27,B for a minimum of five years from the time of planting.
- f. The applicant may propose, and the Commission may approve or require, variations from the standards in Section 10.27,B,5,c through e if necessary to achieve effective buffering. The Commission may exempt an individual, whether an applicant or violator, from the requirement that the revegetation plan be prepared by a qualified professional in accordance with Section 10.27,B,5,a, when the proposed revegetation is routine and would not affect a particularly sensitive resource.

#### F. FILLING AND GRADING

The following requirements for filling and grading shall apply in all subdistricts except as otherwise provided herein.

Filling and grading activities not in conformance with the standards of this section may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit shall show by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards of this section, shall be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

These standards do not apply to filling or grading activities which constitute forest or agricultural management activities, the construction, reconstruction and maintenance of roads, or the construction of public trailered ramps, hand-carry launches, or driveways. Such activities are separately regulated.

- Within 250 feet of water bodies and wetlands, the maximum size of a filled or graded area, on any single lot or parcel, shall be 5,000 square feet. This shall include all areas of mineral soil disturbed by the filling or grading activity; and
- 2. Beyond 250 feet from water bodies and wetlands, the maximum size of filled or graded areas, as described above, shall be 20,000 square feet, except that there shall be no limit to the size of filled or graded areas in M-GN subdistricts which are greater than 250 feet from water bodies and wetlands. In such M-GN subdistrict areas, the provisions of Section 10.27,F,4 and 6 shall apply; and
- 3. Clearing of areas to be filled or graded is subject to the clearing standards of Section 10.27,B; and
- 4. Imported fill material to be placed within 250 feet of water bodies shall not contain debris, trash, rubbish or hazardous or toxic materials. All fill, regardless of where placed, shall be free of hazardous or toxic materials; and
- 5. Within 250 feet of major flowing waters, bodies of standing water and P-WL1 wetlands, the sustained slope between the normal high water mark or the upland edge of the resource and the soil disturbance shall be no greater than 20%. For the purposes of this standard, sustained slope means a change in elevation where the referenced percent grade is substantially maintained or exceeded throughout the measured area. The provisions of this paragraph apply only to a face sloping toward the water body or wetland; and
- 6. Where filled or graded areas are in the vicinity of water bodies or wetlands, such filled or graded areas shall not extend closer to the normal high water mark of a flowing water, a body of standing water, a coastal wetland, or the upland edge of freshwater wetlands identified as P-WL1 subdistrict than the following:
  - For a minor flowing water, body of standing water less than 10 acres in size, coastal wetland, or freshwater wetland; 75 feet; and
  - b. For a major flowing water and body of standing water 10 acres or greater in size: 100 feet.
- 7. All filled or graded areas shall be promptly stabilized to prevent erosion and sedimentation.

Filled or graded areas, including all areas of disturbed soil, within 250 feet of water bodies and wetlands, shall be stabilized according to the Guidelines for Vegetative Stabilization contained in Appendix B of this chapter.

# APPENDIX B GUIDELINES FOR VEGETATIVE STABILIZATION

Areas of disturbed soil, including but not limited to areas that are filled, graded or otherwise disturbed during construction projects, should be stabilized according to the following guidelines. These guidelines do not apply to forest management activities and are not strict regulations, and therefore alternative methods of stabilizing soil may be used. However, whenever soil stabilization or stabilization of disturbed areas is required by regulation or by the terms of individual permits, individuals must assure that either these guidelines, or measures equally effective in stabilizing disturbed areas of soil are employed.

The goals to be achieved by proper stabilization are the avoidance of accelerated soil erosion and the avoidance of sedimentation or pollution of water bodies. All stabilization measures must be maintained so that grass or other vegetation remains intact and healthy, otherwise these measures will be ineffective.

### In general:

- Sterile soils such as sands and gravels should be covered with 2 to 4 inches of soil medium that will support vegetative growth.
- Disturbed soil areas should be graded such that runoff water is either minimized or eliminated from running over the site.
- Disturbed areas which can be seeded between May 1 and September 15 should be prepared and seeded during that period.
- 4. Disturbed areas which cannot be seeded between May 1 and September 15 should be mulched with hay, straw or some other suitable material to keep them as stable as possible over the winter, and particularly during spring runoff the following year. For over-wintering, mulch must be tacked down, as it is easily blown around on frozen ground, leaving areas of soil exposed. Mulch hay should be applied at a depth of 4 inches, or between 150 to 200 lbs. per 1,000 square feet, over the disturbed site. Mulched over-wintered areas should be prepared and seeded the following spring as soon as conditions allow.

It is not recommended that disturbed areas be seeded after September 15th ("dormant seeding") for a number of reasons. Among the reasons, seeding rates are doubled, which is more expensive; timing is critical to ensure that germination does not occur before the following spring; there is an increased risk of sedimentation because sites are generally wetter in the fall; the thicker mulch must be removed in the spring in order to allow the germinating seed to survive; and the application of fertilizer during this time increases the risk of leaching or runoff loss of nutrients into water bodies.

- 5. Seeding preparation, in addition to providing a soil medium that will support vegetative growth if the site is sterile, includes the application of lime and fertilizer, which should be lightly raked prior to seeding. After the area is seeded, it should be lightly watered and then mulched with 70 to 90 lbs. (2 standard bales) per 1,000 square feet of weed free hay or straw to protect the seed. Keep the site stable and moist, and allow the seed to germinate and grow.
- 6. For accurate liming as well as fertilization, it is recommended that you have the soil analyzed to determine the specific nutrient requirements of your site.

Lime should be applied at a rate of approximately 140 pounds to 1,000 square feet of area. This rate may vary depending on the natural conditions of the soil on the site. 10-5-20 fertilizer should be applied at a rate of 18.5 lbs. per 1,000 square feet of area. Following the establishment of vegetation, non-phosphorous fertilizer should be used in accordance with the Department of Environmental Protection's recommendations.

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7. In shoreland areas in particular, fertilizers should be of the "quick release" low phosphorus type, such as 12-4-8 mixtures applied at a rate of 8 pounds per 1,000 square feet of area. If you are near water bodies, it is important not to apply more than approximately this amount of fertilizer, as excess may be washed into streams or lakes and contribute to lowering water quality and such things as algae blooms in lakes.

Following the establishment of vegetation, non-phosphorous fertilizer should be used in accordance with the Department of Environmental Protection's recommendations.

Fertilizers should never be applied right before thunder storms or before spring runoff, because the great amounts of water running over the land will wash the fertilizer, particularly phosphorus, into water bodies. However, a light watering after the fertilizer is applied will help bind the phosphorus to the soil.

8. There are many combinations of grasses that can be used. One combination particularly good for providing soil stability, generally referred to as the Soil Conservation Mixture, consists of: (Proportions, by weight)

Creeping Red Fescue 35% Annual Rye Grass 15% Red Top 10%		Kentucky Bluegrass Perennial Rye Grass White Dutch Clover	25% 10% 5%
* Oats - See Below	1070	while Dutch Clovel	370

This seed would be applied at a rate of 1 pound per 1,000 square feet. These particular grasses do best if mowed no closer than 2-1/2 to 3 inches from the ground. Of course, other seed mixtures are available.

It is important, in choosing a mixture, to choose one suitable for the site being stabilized. There are many different types of seeding mixtures designed for particular site conditions such as shade, sun, and drainage. Any mix should contain some seed which germinates rapidly to provide the quickest stabilization possible while awaiting the germination of the remaining types.

(\*) For quick germination, oats are very good. They germinate in 7 to 10 days. They should be planted at a rate of approximately 1 to 1-1/2 bushels per acre, in addition to the basic grass mixture. Oats should be mowed when they reach knee height to allow the germinating grasses to receive sunlight.

### Alternatives:

As indicated above, other stabilization programs may be used, provided they are equivalently effective in stabilizing disturbed areas and preventing accelerated soil erosion and sedimentation of water bodies. Further assistance may be obtained, including in some cases site-specific recommendations, as follows:

- · Local Soil and Water Conservation Districts
- The USDA Natural Resource Conservation Service
- Maine Department of Environmental Protection, Lakes Program
- Landscaping Professionals
- · Reputable Lawn and Garden Supply Dealers

The following documents may provide valuable assistance to those developing a soil stabilization plan:

Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices (Cumberland County Soil & Water Conservation District and Maine Department of Environmental Protection, 1991)

Strategy for Managing Nonpoint Source Pollution From Agricultural Sources and Best Management Guidelines (NPS Agricultural Task Force, 1991)

Erosion and Sediment Control Handbook for Maine Timber Harvesting Operations, Best Management Practices (Maine Forest Service, 1991)